

No. 12,848

IN THE

United States Court of Appeals

FOR THE NINTH CIRCUIT

THE PARKER APPLIANCE COMPANY,

Plaintiff-Appellant,

vs.

IRVIN W. MASTERS, INC.,

Defendant-Appellee.

THE PARKER APPLIANCE COMPANY,

Plaintiff-Appellant,

vs.

JOSEPH C. COLLINS, doing busines under the firm name and style of
COLLINS ENGINEERING COMPANY, Hollywood, California,

Defendant-Appellee.

APPELLEES' BRIEF.

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JOSEPH C. COLLINS, doing business under the firm name and style of
COLLINS ENGINEERING COMPANY, Hollywood, California,

Defendant-Appellee.

APPELLEES' BRIEF.

Statement of the Case.

Many different types of fluid lines are used on aircraft and all require fittings or couplings for connections. Certain fluid lines are those constructed of metal tubing, namely, copper, aluminum and steel, and these require a special fitting adapted to that particular use. Prior to employment of the particular fitting here in issue, various other styles of fittings were used consisting in some instances, of two-piece fittings, and, in other instances, of three-piece fittings, both employing a flare on the tubing. Flareless couplings are also in use.

Before present standards were adopted, the Navy employed a set of fittings which were not interchangeable

with those used by the Army Air Corps. Some of the threads were non-standard. In the interest of uniformity, experience and data were correlated by agencies of the government in cooperation with manufacturers which resulted in the adoption of specifications for a standard fitting. It was planned that the fitting should be a three-piece fitting and that parts made by different manufacturers would be interchangeable. The fitting was to be a non-proprietary fitting so as to be available to all users from many sources [R. 563, 651]. The newly adopted fitting was designated the Army-Navy Standard Three-Piece Fitting or AN Standard. Other acceptable fittings include the AC811 three-piece fitting and the AN817 two-piece fitting.

All manufacturers must supply fittings conforming to AN Std. specifications where the fittings are used on government work. Commercial aircraft manufacturers as a matter of expediency have also turned to a large extent to the AN Std. fittings. Those are the fittings parts for which are sold by the Appellees here and also the fittings manufactured and sold by the Appellant. Appellant by this suit has sought to show that all AN Std. three-piece fittings are infringements of Parker Patent No. 2,212,183, which Appellee's deny.

Decision of the District Court.

The trial court was aware of Appellant's contention that invention lay in the difference in angle between the outer wall of the sleeve head and the inner wall of the nut, termed the "sleeve head angle" and in the difference in angle initially between the inner angular surface of the sleeve head and the outer angular surface of either

the tube flare or the body, identified throughout the testimony here as the “differential angle.” Nevertheless the Court in its opinion said:

“We are of the opinion that the change in the angles between the outer wall of the sleeve and the inner wall of the nut and the outer surface of the sleeve head, and the outer angular surface of the tube flare, does not justify a monopoly.” [R. 77.]

The trial court also held Parker Patent No. 2,212,183 invalid for uncertainty and failure to meet the requirements of Revised Statutes, Section 4888, 35 U. S. C. 33 [R. 67]. The Court went into considerable detail to give its reasons why the expression “so shaped” as used in the claims, in the light of the prior art and the evidence, was insufficient to satisfy the statutory requirement [R. 67-73].

All claims being adjudged invalid, the Court deemed it unnecessary to express any conclusion as to whether, if valid, all or any of the claims would be infringed [R. 87]. That issue not being before this Court, we reserve argument thereon, and references thereto in this brief are incidental.

Findings of the District Court.

The findings of the District Court upon which the decision is based holding the patent in suit invalid for want of invention or anticipation are those numbered VI, X, XII, XIII, XIV, XV, and XVI, found at R. 80 *et seq.*

Findings relating to the insufficiency of the Parker patent under R. S. 4888, 35 U. S. C. 33, are those numbered VII, VIII, XII, XIII, and part of XIV.

SUMMARY OF ARGUMENT.

I. All findings of fact on want of invention and anticipation are supported by the evidence, and the judgment should stand.

1. Finding VI that three-piece couplings of this type are very old in the art and the patent in suit is in a very crowded art is supported by the record.

2. All the structure recited in Claims 1, 2 and 3 is old in the art. The rest of each claim is a relationship which would have to be established by experiment.

3. Finding X to the fact that the prior art illustrates numerous three-piece fittings embodying the three essential elements found in the patent in suit, that the prior patents disclose various shapes and forms of sleeve heads and tube flares and angular relationships between the several parts is amply supported by the record.

4. Finding XII, that by reference to the Parker Patent No. 2, 212, 183, no one could achieve the results called for without experimentation, is fully supported by the evidence.

5. Finding XIII, that the patentee Parker's contribution to the art is narrow, if any, and claims are broader than the invention, is fully supported in the record.

6. Finding XIV, that the claims of Parker Patent No. 2,212,183, are not susceptible of any interpretation which would preserve their validity, is fully supported in the record.

7. Finding XV, to the fact that the differences, if any, disclosed in the patent in suit over the prior art do not involve invention, is supported by substantial evidence.

8. Finding XVI, that employment of any change in the sleeve head angle and differential angle involves no more than mechanical skill and cannot justify a patent, is supported by substantial evidence.

9. Minor changes and perfection of workmanship even if present do not constitute invention.

10. Appellees' Supplement Argument.

II. The Parker Patent No. 2,212,183, as to all three claims is invalid for uncertainty and failure to meet the requirements of revised Statutes, Section 4888, 35 U. S. C. 33.

1. Sampling of evidence on deficiency of description clearly supports this defense.

2. Sampling of evidence on deficiency of the Parker claims clearly supports this defense.

3. Appellant's Opening Brief on this point is lacking in accuracy and its authorities do not support its argument.

III. The Parker Patent No. 2,212,183 as to all three claims is invalid because the original application was forfeited and the patent issued upon a renewed application containing additional subject matter.

ARGUMENT.

I.

All Findings of Fact on Want of Invention and Anticipation Are Supported by the Evidence and the Judgment Should Stand.

THE FEDERAL RULE.

“Findings of fact shall not be set aside unless clearly erroneous, and due regard shall be given to the opportunity of the trial court to judge the credibility of the witnesses.”

Rule 52(a), Federal Rules of Civil Procedure; 28 U. S. C. A. 13.

THE LAW IN THE NINTH CIRCUIT.

This Court of Appeals in discussing evidence offered in connection with a paper shredding machine ruled as follows:

“These findings are amply supported by the evidence. Of the twenty-seven witnesses who testified, seventeen testified in open court and were seen and heard by the trial judge, who had also the advantage of seeing and examining the accused machine. His findings, therefore, unless clearly wrong, should not be disturbed.”

Antonsen v. Hedrick, 89 F. 2d 149, 151 (C. C. A. 9).

Even though the evidence was conflicting this Court has held that the findings should not be disturbed saying:

“These findings are supported by substantial evidence, are not clearly erroneous and should not be set aside.”

Ralph Brodie Co. v. Hydraulic Press Mfg. Co., 151 F. 2d 91, 94 (C. C. A. 9).

A case involving cementing equipment for oil wells prompted this Court to say:

“The trial court held that it required mere mechanical skill to substitute perforated ports in the casing for the 1926 method of perforating after lowering, as taught in a number of patents in evidence and by Manning’s No. 2,029,380 and Boynton’s No. 1,673,616. This was a finding of fact that cannot be disturbed on appeal except for manifest error.”

Crowell v. Baker Oil Tools, 153 F. 2d 972, 979 (C. C. A. 9).

Other decisions in this Circuit following chronologically consistently support the law as set forth so clearly:

Maulsby v. Conzevoy, 161 F. 2d 165, 167 (C. C. A. 9).

Refrigeration Engineering v. York Corporation, 168 F. 2d 896, 899 (C. C. A. 9).

In a decision by this Court involving amusement games the language is direct and to the point.

“We are of the view that the trial court committed no error in its factual findings and that its determination and application of the law was and is correct.

“The question of whether or not a new and useful combination is the result of mere mechanical skill, or of inventive faculty, is one of fact.

“What constitutes invention as distinguished from a mere aggregation, is a question of fact.

“Questions of invention and patent validity are questions of fact.

“Whether prior art patents or publications disclose or anticipate the subject matter of a patent in issue is determined as a question of fact.”

Faulkner v. Gibbs, 170 F. 2d 34, 37 (C. A. 9).

For a rather full discussion of the application of the rule that findings of fact in the trial court are not readily disturbed, see:

Pointer v. Six Wheel Corporation, 177 F. 2d 153, 159 (C. A. 9).

OTHER CIRCUITS ARE IN CONFORMITY.

“It is a familiar rule that findings made in an equity case are not conclusive, but they are presumptively correct and will not be disturbed on appeal if they are supported by substantial evidence and no serious mistake was made in the consideration of the evidence.”

Ruth v. Climax Molybdenum Co., 93 F. 2d 699, 702 (C. C. A. 10).

In a case involving carburetors expert testimony supported both plaintiff's and defendant's position but the Court in holding the findings to be questions of fact said:

“A finding of fact of a district court is not clearly erroneous unless it is (1) unsupported by substantial evidence, (2) contrary to the clear weight of the evidence, or (3) induced by an erroneous view of the law.”

“The credibility of expert witnesses and the weight of expert testimony is ordinarily for the trier of the facts to determine.”

Gasifier Mfg. Co. v. General Motors Corporation, 138 F. 2d 197, 199, 200 (C. C. A. 8).

The Sixth Circuit Court of Appeals in discussing findings predicated upon expert testimony relating to performance of electric motors said:

“And so, both from autoptic proference and from the expert testimony, it cannot be said that the

findings of the district judge as to the Coerper anticipation were clearly erroneous.”

O’Leary v. Liggett Drug Co., 150 F. 2d 656, 663 (C. C. A. 6).

“As it is well settled that the presence or absence of ‘novelty’ and ‘invention’ necessary to sustain the validity of patents is a question of fact and the construction of patent claims where extrinsic evidence is required to determine the meaning of technical terms also involves questions of fact . . .”

Hall Laboratories v. Economics Laboratory, 169 F. 2d 65, 66, 67 (C. C. A. 8).

1. Finding VI, That Three-piece Couplings of This Type Are Very Old in the Art and the Patent in Suit Is in a very Crowded Art Is Supported by the Record.

All the basic elements of a three-piece coupling were well-known at least forty-nine years ago. Figure 86 of the paper “Lead and Composition Pipes,” page 93, published in 1902, pictures a three-piece coupling for a flared tube showing a body, nut and sleeve [R. 733-4]. [Deft. Exs. D and SS.]

Appellant’s witness, Wolfram, admits that three-piece fittings are in the public domain [R. 732-733]. The same witness, Wolfram, selects parts of Claim 1 which are old, namely, coupling members having a threaded engagement, one member having a seat engaging the flare and the other having a clamping shoulder in a relation such that a sleeve surrounding a tube is clamped between them [R. 429-430]. This witness said that the invention lay in *so shaping* the sleeve that there was toe contact. Obviously therefore whatever Appellant claims

lies in nothing more than a rearrangement of the well-known three-piece fitting.

Parker was not the originator of the three-piece fitting, according to Appellant's Chief Engineer Davies [R. 1087].

The obvious crowded art is further demonstrated by various prior patents later referred to.

2. All the Structure Recited in Claims 1, 2 and 3 Is Old in the Art. The Rest of Each Claim Is a Relationship Which Would Have to Be Established by Experiment.

CLAIM 1.

Cross-examination of Appellant's expert, Wolfram, on the "sleeve head" angle:

"Q. If it is so simple, just tell the court briefly how you go about determining what the angle will be. A. Well, I think that the specific angle could probably best be determined by straightforward engineering analysis, or else *experiment*, either one.

Q. Would you be able to determine it? Do you have enough knowledge of the principles involved to figure that out? A. I think if I set about doing it I think that could be determined.

Q. You are a man skilled in the art; how would you determine what that angle should be? Tell the court the line that you would follow in determining what that angle should be. A. Well, as I mentioned, it could be determined by a stress analysis or by *experiment*.

Q. Is that your complete answer? A. I think so." (Emphasis ours.) [R. 440-441.]

CLAIM 2.

When Appellant's witness, Wolfram, discussed the alleged novelty of Claim 2, he again pointed out that the structure was old in the art [R. 443-444]. Then in stating what was new the witness asserted that it consisted of a clearance between the exterior of the sleeve head and the interior of the nut. The witness further pointed out that in the patent and to follow the patent teaching it is necessary to have *radial* contact at least at the large end of the sleeve head. In discussing the necessity for radial contact at the "region of the clamping shoulder" this witness, Wolfram, on further cross-examination was very explicit.

"Q. All right. So that in order to conform to this language, 'the region of the clamping shoulder,' there must be a contact between the nut and the head of the sleeve not only on the plane horizontal surface of those respective pieces, but also part way down the side on the circumferential surface, that is your testimony? A. No, I didn't say that it had to go part way down the side. It could be right at the corner.

Q. And terminate at the corner? A. Yes.

Q. So that if there is a clearance from the corner on down between the inner wall of the nut and the the outer wall of the sleeve, I want to repeat that, a clearance from the corner all the way down, that is within the meaning of this language in the claim? A. Yes, as long as at the corner there is some means for limiting the expansion.

Q. Limiting radial expansion? A. Yes.

Q. And do you consider that to be essential under the teaching of the patent and in particular this claim, do you? A. Yes, it is part of the claim.

Q. Well, then, would you say that a physical structure which had all these parts of the claim, except that there was a clearance between the outside of the sleeve head and the inside of the nut, all the way up to the corner, that such a device would not be within the scope of this claim 2? A. If it did not provide any means at the corner for limiting the expansion.

Q. For limiting radial expansion? A. Radial expansion.

Q. That is what you mean? A. Yes." [R. 444-445.]

This position of Appellant points the way to what should be considered as anticipating by the prior art. According to him, if the prior art shows a radial clearance or clearance laterally at the inside end of the sleeve head adjacent the shoulder, as well as throughout the remainder of the sleeve head, there would be no anticipation. Consequently, if the prior art shows such clearance and the structures charged to infringe likewise show such clearance, it follows that the structures are made in accordance with the prior art and not in accordance with Appellees' patent as defined in Claim 2.

CLAIM 3.

Appellant in pointing out the asserted distinguishing features of Claim 3 states that the sleeve head must be so formed that a differential angle is present, namely, so that there is toe contact only of the sleeve head with the outer end of the flare, and also that the sleeve head must provide an initial clearance between itself and the nut sufficient that there be no contact between the sleeve head and the nut when the fitting is tightened [R. 447]. Obviously therefore the two novel features jointly attri-

buted to Claim 3 have already been attributed separately to Claims 1 and 2.

Appellant's contribution, if any, can be nothing but a minor modification of the well-known three-piece coupling. Three-piece couplings have been known in the prior art and known to be in the public domain for many years as evidenced by the following prior art patents or publications produced in evidence:

Bjorling—Pipes and Tubes, 1902, Exhibit SS, shows a three-piece coupling with a solid sleeve head.

Parker Patents No. 1,893,442, Exhibit 25, and No. 1,977,240, show three-piece fittings with solid sleeve heads.

Patents to:

Guyer No. 196,084, Exhibit TT-4, issued in 1877.
McConnell No. 290,446, issued in 1883, Exhibit TT-5.

Jordan No. 654,735, issued in 1900, Exhibit TT-9.
Dossert No. 772,136, issued in 1904, Exhibit TT-10.

Benzion No. 1,680,080, issued in 1928, Exhibit TT-14, all show three-piece couplings with solid sleeve heads.

Parker No. 1,977,241, issued October 16, 1934, Exhibit TT-16, shows a three-piece coupling with toe contact.

It therefore follows that whatever Appellant's patent contains, it must be some minor dimensional detail around which only very narrow and explicit claims could be woven because broad claims could not be allowed in view of the foregoing prior art. No broad claim can possibly define a valid patent in view of that art.

3. Finding X to the Fact That the Prior Art Illustrates Numerous Three-piece Fittings Embodying the Three Essential Elements Found in the Patent in Suit, That the Prior Patents Disclose Various Shapes and Forms of Sleeve Heads and Tube Flares and Angular Relationships Between the Several Parts Is Amply Supported by the Record.

(a) SLEEVE HEAD ANGLE.

The sleeve head angle provides a clearance to permit the sleeve head to expand in the nut. If this be Appellant's novel achievement, it is abundantly met by prior art structures. The Parker Appliance Company in 1935, three years prior to application for the patent in suit, commercially employed a clearance condition which exceeded certain clearance conditions in present-day AN Std. fittings. What the clearance condition is in the patent cannot be definitely ascertained. Appellant claims, and Appellees deny, that the AN Std. fittings typify the patent in suit.

The Court's attention is directed to Defendants' Exhibit II [R. 1471] which shows the assembly of an AN Std. #6 Size fitting to minimum allowable clearance condition. The sleeve head of the AN Std. #6 fitting has a permissible one-half degree sleeve head angle. The clearance between the large end or shoulder end of the sleeve head and the nut is at minimum condition .003 inches on each side. The one-half degree sleeve head angle produces a clearance of .00432 inches at the small end or toe end of the sleeve. These are the dimensions and clearances of virtually millions of commercial fittings.

Exhibit JJ [R. 1472] is an assembly of the Parker three-piece fitting as it was constructed in 1935. The dimensions are taken from production drawings in the files of the Parker Appliance Company. The drawings are in evidence as Exhibit MM, Drawing No. 2-1835-1,

issued February 18, 1935; and Exhibit N. Drawing No. 2-1835-2, issued February 18, 1935. They depict the standard triple coupling of the Parker Appliance Company, Cleveland, Ohio. No sleeve head angle was then employed.

When the maximum allowable clearance conditions are used there is a clearance of .0045 inches throughout the entire length of the sleeve head. This is a clearance exceeding not only the clearance at the large end of the sleeve head as shown in Exhibit II, but also exceeding the clearance at the small end of the sleeve head resulting from the presence of the sleeve head angle [R. 621-622]. Obviously there is nothing new achieved by use of a sleeve head angle. It merely means leaving enough space so that the sleeve head can expand when the fitting is drawn tight.

Although the foregoing proof alone is sufficient to anticipate all claims for novelty in the sleeve head angle, attention is directed to other examples of three-piece fittings of which the prior art is replete as showing a three-piece fitting wherein the sleeve is adapted to expand in the nut.

SHEET No. 1.

For the Court's convenience there is appended to this brief Sheet No. 1, comprising a set of diagrams, Nos. A through G, which illustrate the progress of the art in providing clearance around the sleeve head in a three-piece fitting. The diagrams show how clearances were changed as years of experience accumulated.

Diagram A shows the clearance as employed in 1933 by Parker Patent No. 1,893,442, Plaintiff's Exhibit 25. The clearance there proposed was a slip fit.

Diagram B shows the clearance proposed in 1934 by Parker Patent No. 1,977,240, Plaintiff's Exhibit 26. The clearance in that instance is materially greater.

Diagram C illustrates a well-defined clearance advocated by Parker drawings dated in 1935. This is the clearance referred to in Exhibit JJ.

Diagram D shows the clearance arrangement suggested by Patent No. 2,212,183 in suit. That is a clearance at the point *c* but no clearance at the point *a*.

Diagrams E, F and G show current constructions in accordance with AN Std. drawings wherein there is always a clearance at point *a* both prior to and subsequent to assembly as well as there being an initial clearance at the point *c*.

From these conditions graphically depicted by diagram it is immediately apparent that the prior art and present practice are the same with regard to providing a clearance for sleeve head expansion. Only the patent suggests closing the clearance at point *a*, a condition which in practical effect is worth nothing. If the clearance remains after the fitting is made, it makes no difference how little or great it may be.

Prior to the issue of Parker's earlier Patent No. 1,893,442 in 1933, Plaintiff's Exhibit 25, three-piece fittings were in existence in which a clearance was present between the sleeve head and the nut. Parker departed from this prior art condition in his earlier patent but later apparently found the clearance condition necessary because he returned to it in his subsequent patents and subsequent practice in 1935 [R. 679-680].

These prior patents and publications show a sleeve head clearance:

The Bjorling publication, Exhibits D and SS.

Guyer No. 196,084, Exhibit TT-4.

Benzion No. 1,680,880, Exhibit TT-14.

Huett No. 1,820,020, Exhibit TT-14.

Parker in his own patent No. 1,977,241, issued in 1934.

Whether it be an angle or an annular clearance, the effect is the same [R. 738].

The AC811 fitting was adopted by the Army Air Corps in 1935 [R. 185] and that had a sleeve head clearance. Employment of specific clearances were the conclusions of years of experience [R. 581]. Appellant's witness, Amon, recognized the sleeve head angle as an angle providing somewhat more clearance at the small end than the large end [R. 1001-1002]. He did not consider the sleeve head angle to give a zero clearance at the large end which was the position of Appellant as stated by its witness, Wolfram.

(b) DIFFERENTIAL ANGLE.

Appellant appears to take the position that the differential angle is an angular difference between the inside of the sleeve head and the exterior of the flare sufficient to produce a toe contact near the outside or large end of the flare and leave a clear space from the toe to the base of the flare in the sleeve.

Because there is no such toe contact in the AN Std. fitting herein charged to infringe, it would appear that Appellant may seek to infer, and such is supported by their offer of evidence, that differential angle is an angular difference between the inside angle of the flare and *the angle on the body*. There is in fact such an angular difference, namely, four degrees between the 37° body angle of the AN Std. fitting and the inside sleeve angle of 33° as depicted in Exhibit O. If the last defined position of what constitutes a differential angle is not Appellant's

contention, then again it is evidence that this suit is nothing more than vexatious litigation without foundation.

Whichever position is Appellant's true position, or even if Appellant should be so bold as to adopt both positions, nevertheless the differential angle by either conception is anticipated by the prior art. Differential angle and toe contact appear to be used synonymously. The toe contact of Parker Patent in suit No. 2,212,183 as evidenced by Figure 2 has been referred to in considerable detail by Appellant's witness Wolfram as meaning that the toe of the sleeve strikes the flare on the tubing first.

SHEET No. 2.

For the court's convenience there have been collected a series of diagrams on sheet No. 2 showing successively the toe contact of the patent in suit, Diagram A; the relationship of corresponding parts in prior Patent No. 1,977,241, Diagram B; the natural thinning-down angles of the flare on tubing as shown in Drawing AND10061, Exhibit 28E, and referred to as being the natural thinning angle of the flare [R. 576], Diagram C. In Diagram D is illustrated the nut and body of the NAF fitting (AN 817) which antedated the three-piece fitting. In Diagram E for convenience in interpreting the prior art and Appellant's patent are shown the sleeve, flare and body of the standard three-piece fitting presently in use, taken from Exhibit O.

Toe contact in a three-piece fitting for precisely the same purpose as the patent in suit is clearly shown in Parker's prior patent No. 1,977,241 issued on October 16, 1934. That patent from which Diagram B is taken

shows specifically in Figure 4 employment of a body 4 having a somewhat rounded nose to receive the tubing flare 9. A sleeve has an end portion 15 which is curved apparently so that when drawn tight it will accommodate the curve on the nose of the body. The presence of the curve on the end portion 15 produces initially a clear space between the flared inside face of the portion 15 *which is the sleeve head* and the exterior of the flare. That produces toe contact at the point 16 as illustrated in Figure 4. Patent 1,977,241 goes into detail to describe how the portion 15 yields as the fitting is tightened up where on page 2, column 1, lines 51 through 56, appears the language:

“When, however, the sleeve 2 is forced against the flared end of the tube by the turning of the coupling parts, the projecting portion 15 will yield causing the seat 16 to make intimate contact with the outer flared face of the tube end.”

That is the same thing which happens in the patent in suit and which has been so frequently described as the action of the sleeve head in the evidence presented in this case.

Appellant has made some weak protest about employment of patent 1,977,241 as prior art to show toe contact based upon the fact that the prior patent referred to does not reveal a solid sleeve head. However, solid sleeve heads are amply shown throughout the prior art. To make the sleeve head solid would be merely to go back and do what the prior art has always taught.

To make an angular difference between the inside flare of the sleeve head and *the angular nose on the body* so as

to accommodate the diminishing thickness of the flare on tubing because of its thinning out is certainly not worthy of a monopoly. The thinning out was recognized long before the advent of the patent in suit [R. 576].

To accommodate this thinning out the old two-piece coupling wherein the nut and sleeve were combined in one part employed an inside flared angle different from the angle on the nose of the body by four degrees which was and is today recognized as the result of natural thinning down of the metal in the flare. This relationship is depicted in Diagram D of sheet No. 2 in this brief. The old NAF fitting had a four degree angular difference [R. 576]. That was the angular difference adopted by the Army-Navy standardization copying that angular difference from the old NAF fitting [R. 581]. Appellant's witness Amon knew that relationship in the NAF fitting to antedate employment of a similar relationship by Parker [R. 995].

The witness Amon in an attempt to sidestep this obvious anticipation, referred to a double differential angle [R. 996-997]. The double differential angle, namely, the addition of an $18\frac{1}{2}^{\circ}$ angle at the inner end of the interior sleeve flare was a development of the Douglas Aircraft Company as a result of the efforts of one Harold Adams [R. 711]. It was a development entirely unrelated to what Appellant claims to be the differential angle of the patent in suit.

The old NAF two-piece fitting is still carried under a present AN Std. designation, namely AN-817. Masters recognizes the angular difference between the inside flare in the nut and the outside flare on the nose of the body as

comprising the differential angle in terms of the trade [R. 593]. With respect to the practice of the Lockheed Aircraft Company the presence of a differential angle is not important [R. 671]. On the world-famous Constellations manufactured by the Lockheed Aircraft Company and the P-38 fighter plane a combination fitting was employed utilizing nut, sleeve, and body as depicted in Exhibit R. The inside sleeve angle as there shown exclusive of the $18\frac{1}{2}^{\circ}$ rework angle flares out in a direction which makes toe contact impossible and hence no differential angle exists or is employed.

The differential angle was unimportant to the Douglas Aircraft Company. They used AC-811 fittings, an assembly of which is illustrated in Exhibit Q. The angle at the inside of the sleeve head flare is greater than the angle on the exterior of the flare on the tubing so that there can be no toe contact. Some 50,000 airplanes produced by North American Aviation Corp. were manufactured and operated successfully with fittings of that description [R. 703-704]. When there was a choice between using the AN fitting and another fitting, the North American Aviation Corp. chose another fitting. This company actually prefers the flareless fitting [R. 705].

THE $18\frac{1}{2}^{\circ}$ REWORK ANGLE.

On certain small sizes of fittings, namely, size 6 and smaller, and in those sizes only when the sleeve is made of a certain kind of metal, namely, copper silicon, the sleeves are made with an extra $18\frac{1}{2}^{\circ}$ angle in addition to the regular 33° angle.

The $18\frac{1}{2}^{\circ}$ angle, however, making what Appellant's witness Davies describes as a double differential angle, did not originate with Parker [R. 1087]. Appellant's witness Amon also recognizes that the $18\frac{1}{2}^{\circ}$ rework angle did not originate with Parker [R. 998-999].

Appellant's witness Amon, however, attempts to assert that a sleeve employing the $18\frac{1}{2}^{\circ}$ angle is one wherein toe contact is present.

“Yes; that's true. With this double angle sleeve, which is also called a modified sleeve, and it's also called a wedge-type sleeve, the 33-degree angle on the sleeve makes a narrow contact with the surface of the flare at the toe. That's what we spoke of as toe contact.” [R. 991.]

Reference is there made to Amon deposition Exhibit 8 which is Appellant's Exhibit 70 herein. The same witness attempts to show that the $18\frac{1}{2}^{\circ}$ angular flare closes up when the fitting is tight. This is not true.

SHEET No. 3.

The court is invited to compare Exhibit 28N [R. 1361] with a photograph showing the test results of tightening up a sleeve head with an $18\frac{1}{2}^{\circ}$ working angle on it. These results are transferred to Sheet No. 3 attached hereto for convenience in comparison. Diagram A is a reproduction of Exhibit 28N showing, according to Appellant's interpretation, how expansion converts toe contact to area contact in the patent in suit. Diagram B is taken directly from the photograph, Exhibit 78 [R. 1409], which shows the condition of an AN Std. fitting in which the $18\frac{1}{2}^{\circ}$ rework angle is employed. Clearly in the photograph, as reproduced in the diagram, the surface of the

$18\frac{1}{2}^{\circ}$ angle does not close up [R. 800]. It is not converted to area contact as claimed by Appellant. The photograph referred to as Exhibit 78 was one of several photographs appearing in a test study conducted by Harold W. Adams in the interest of the Douglas Aircraft Company on the occasion of his development of an $18\frac{1}{2}^{\circ}$ angle as a rework angle to prevent pinch-off of the tube end. To prevent that pinch-off the angular difference must be exceedingly great. As shown in another photograph an angular difference of no more than the normal 4° difference in the AN Std. fitting would not prevent pinch-off [R. 713, 714; Ex. VV; R. 711, 712]. The witness Adams who developed the $18\frac{1}{2}^{\circ}$ rework angle considered it as no more than a mechanical improvement [R. 735-736].

4. **Finding XII, That by Reference to the Parker Patent No. 2,212,183 No One Could Achieve the Results Called for Without Experimentation, Is Fully Supported by the Evidence.**

Although the Appellant's position appears to be that what the patent defines as novel is a sleeve head angle having a certain dimensional relationship one part with another, Appellant's witness Wolfram finds that the claims can be met by sundry other relationships. In examining those other suggested relationships, one significant factor becomes glaringly apparent; that is, at the large end of the sleeve head or, in any event, at the end of the sleeve head where the shoulder is located, there is contact between the sleeve head and the nut. The contact is in the "region of corner" to use the witness Wolfram's terminology. The "region of corner" is defined by Wolfram where he draws a circle around the portion labeled "corner" in figure 1 of Exhibit B [R. 396-397].

SHEET No. 4.

Sketches Figure 1 of Exhibit B, Figures 7 and 8 of Exhibit C, and Figure 9 of Exhibit E, are significant in determining Appellant's interpretation of what constitutes contact at the "region of corner." It means physical resistance of the nut to expansion of the large end of the sleeve head [R. 412-416]. For convenience in comparison Appellees have depicted on sheet No. 4 Wolfram's figures referred to and to this sheet have also been added corresponding sketches taken from the prior art Bjorling publication, Exhibit SS, captioned Diagram Q; Benzion patent No. 1,680,080 captioned Diagram R, and a reproduction of AN Std. No. 8 size fitting after tests corresponding to Exhibit O [as modified by Exhibit S] which for convenience in reference has been labeled Diagram S.

The witness Wolfram calls attention to the fact that he has shown no material difference in the sketches in the relative positions of the corner of the sleeve head and the inside of the nut [R. 397]. The figures referred to and illustrated on sheet 4 clearly show this continuity of relationship. In each case, in finger tight position, there is actual contact shown in a radial or laterally outward direction. Various shapes of sleeve head or nut are shown in the figures to depict a clearance at the free end or toe end of the sleeve head.

Diagram Q, the Bjorling publication, shows a clearance throughout the sleeve head. Diagram R, the Benzion patent, shows a clearance. Diagram S, the AN Std. fitting shows a clearance. Appellant's witness Wolfram explains by saying:

"Well, I think if there is a small amount of side wall contact in the region of the corner here on the

side wall and extending down from the corner a short distance, and then was spaced away from the—or there was a clearance between the two from there on down, that would be within the teaching of the patent.” [R. 399-400.]

It is apparent from this and the testimony immediately preceding and following this statement that what the witness means is that if there is a clearance at the corner the structure is outside the scope of the patent.

This interpretation is supported by an examination of the prior art as depicted on Sheet No. 4. If there were not contact at the corner, then the patent would be anticipated at least by Bjorling publication and by Benzion. Clearly also the AN Std. fitting follows the teaching of the prior art by providing a specific clearance at the corner and does not follow the teaching of the patent. With this Appellant’s witness Wolfram is in agreement [R. 416-417]. If the claims were interpreted as including the AN Std. fitting, then they would have to be invalid as anticipated by the prior art.

5. Finding XIII, That the Patentee Parker’s Contribution to the Art Is Narrow, if Any, and Claims Are Broader Than the Invention, if Any, Is Fully Supported in the Record.

It has been found that Appellant’s position with respect to the language of the claims and the disclosure of patents requires that there be contact radially outward in the “region of corner.” This is proved by Exhibits B, C and E, and has already been clearly illustrated in the diagrammatic study on Sheet No. 4. On Sheet No. 1, Diagram D, there is pictured the relationship of the ex-

terior of the sleeve head to the interior of the nut as disclosed by Figure 2 of the patent in suit.

The words of the claims where they define the sleeve head as being so shaped that the remaining portion of the head of the sleeve is free from contact with the nut while the sleeve makes contact only in the region of the corner, if interpreted to mean a clearance throughout the entire length of the sleeve head, are so broad as to read directly on the prior art as evidenced by Patent No. 1,977,240, Exhibit 26, and the 1935 Parker fitting as illustrated in Exhibit JJ. These relationships are shown respectively in Diagrams B and C of Sheet No. 1.

SHEET No. 5.

Tests were conducted to determine what actually happens to the sleeve head when the fitting is made up. The results are tabulated in Exhibit S [R. 597-611]. Sheet No. 6 appended hereto shows test results graphically portrayed, with dimensions shown to nearest .001 inch.

Diagram A shows an untightened Size 8 AN fitting. Clearances around the sleeve head marked in inches are those for an average of specimens 1, 2, 3, 5 and 6 within a standard nut. Diagram B shows that *no part* of the sleeve head expands enough under recommended torque to touch the nut. Diagram C shows that even at three times the recommended torque the large end of the sleeve head in the "region of corner" does not expand at all, contrary to Appellant's theoretical contentions. No part of the sleeve head would touch the nut even if there were no sleeve head angle. The figures of Exhibit S show considerable variation in dimension of commercial fitting

parts rendering Appellant's claims to benefits of the sleeve head angle clearly extravagant.

To interpret portions of the claims treating with sleeve head expansion broadly enough to read upon the AN Std. fittings, which show a clearance throughout the entire length of the sleeve head under all conditions, would render the claims so broad as to be anticipated by the prior art. Hence the claims interpreted as Appellant attempts to interpret them are broader than the invention, if any, and the AN Std. fittings (commercialized by Appellant) are not in accordance with the patent.

SHEET No. 6.

With respect to the differential angle or toe contact, the claims are broader than the invention, if any. If as Appellant interprets this expression differential angle or toe contact means contact at the outer end of the flare of the sleeve with the outer end of the flare on the tubing, then language cannot be interpreted to read upon the present AN Std. fitting. That fitting is illustrated in Defendant's Exhibit O and is shown in simple diagrammatic relationship on Sheet No. 6, Diagram D. There is only surface contact and not toe contact. If the patent claim is interpreted so broadly as to read upon the AN Std. fitting, then it would be invalid as reading upon prior Parker Patent No. 1,893,442, Plaintiff's Exhibit 25. That is shown diagrammatically on Diagram A on Sheet No. 6.

If a comparable interpretation were applied so that the claim were contended to read upon the AC811 fitting as illustrated in Defendant's Exhibit Q and as shown diagrammatically in Diagram F of Sheet No. 6, then by the same token the claim would be invalid as anticipated

by Patent No. 1,977,240, Plaintiff's Exhibit 26. This also is shown diagrammatically as Diagram B on Sheet No. 6.

To interpret the claim as reading upon the few small sizes of copper silicon or aluminum bronze sleeves of the AN Std. fitting [Exs. P and 70] and as shown in Diagram E on Sheet No. 6, Appellant is claiming the $18\frac{1}{2}^{\circ}$ rework angle which is something completely and entirely different from the patent. Even in this structure there is surface contact or face contact throughout at least one-half of the flared interior surface of the special sleeve head and this contact is nearer the base than the outer end of the flare [R. 750; Ex. VV].

It follows therefore that if the interpretation sought by Appellant which would render the claims infringed by the AN Std. fittings were followed, then the claims would have to be invalid as anticipated by the prior art. Moreover, those claims would be broader than the invention.

6. **Finding XIV, That the Claims of Parker Patent No. 2,212,183, Are Not Susceptible of Any Interpretation Which Would Preserve Their Validity, Is Fully Supported in the Record.**

This finding is amply supported by the evidence and particularly those portions of the evidence referred to in detail with respect to Finding XIII.

As has been pointed out in various portions of the evidence, the strength and judgment of the mechanic in exercising torque for making the fitting will be the determining factor in whether or not a fitting fits the claims [R. 585]; how the flare *on the tube* is made by the mechanic will spell the relationship between the interior of the sleeve head and the exterior on the flare of the tubing. If this be the measure of patentability, then Appellant's patent is not deserving of an interpretation of the claims which would preserve them.

7. Finding XV, to the Fact That the Differences, if Any, Disclosed in the Patent in Suit Over the Prior Art Do Not Involve Invention, Is Supported by Substantial Evidence.

The sleeve head angle so highly considered as a novel feature by Appellant is merely optional with the society of automotive engineers [R. 770].

The Lockheed Aircraft Company in inspecting fittings which are supplied without the sleeve head angle passes those fittings as acceptable [R. 644-645].

A clearance is just as good as a sleeve head angle [R. 58, 86, 87, 90-91, 100, 195-197].

The sleeve head angle is not important [R. 779].

The sleeve fills the nut anyway even though the sleeve head angle might be present [R. 867]. The sleeve head angle is of no value [R. 737]. Angular relationships are desirable but not critical and not important [R. 996]. Fittings without those relationships are satisfactory [R. 699.]

On important aircraft, namely, the Constellation, Lockheed Aircraft Company does not use a fitting with a differential angle but instead a fitting made up of assorted parts where the differential angle is clearly absent, Exhibit R [R. 874]. North American Aviation has constructed upwards of 50,000 airplanes using the AC811 fitting [R. 703-704] where there was no toe contact. Two-piece fittings used on the Douglass DC-3 gave good service after fifteen years of use [R. 740]. AN Std. fittings which feature, according to Appellant's interpretation, the novelties said to be present in the patent, are no panacea for tube failure [R. 703].

Ease of removal is the only advantage of the three-piece fitting over the two-piece fitting [R. 794] but *all* three-piece fittings provide ease of removal [R. 826]. The old 811 fittings are just as easy to remove as the AN Std. or the new AC811 [R. 902].

8. Finding XVI, That Employment of Any Change in the Sleeve Head Angle and Differential Angle Involves No More Than Mechanical Skill and Cannot Justify a Patent, Is Supported by Substantial Evidence.

It is just as easy to remove a sleeve with a cylindrical head as a sleeve with a sleeve head angle [R. 880]. The change from the old two-piece AC-810 to the AN Std. was a gradual elimination of minor objections [R. 887]. The introduction of torque wrenches was partly responsible for improvements in fitting performance [R. 890]. Anyone can also jam the present fitting, namely, the AN Std. fitting [R. 891-892]. The AC-811 fitting without the sleeve head angle worked satisfactorily [R. 1154-1155].

The real problem is not design of a fitting but how the mechanic puts the fittings together. The fitting would work as well if the sleeve had half as much area on the shoulder as it presently has [R. 1181-1182].

Improving the old 1934 fitting to improve the hoop stress was just a matter of opening up the clearance around the sleeve head [R. 1185].

How the tubing is flared is important [R. 1186]. Most important so far as surface contact is concerned is the surface contact of the flare against the body rather than the outside of the flare against the inside of the sleeve head. In other words, contacts other than those between the flare and the body are at best of secondary importance [R. 1190].

9. Minor Changes and Perfection of Workmanship Even if Present, Do Not Constitute Invention.

The evidence is conclusive here that what is shown in the patent in suit is at best no more than a slight dimensional change from the three-piece couplings of the prior art. Nothing unexpected was accomplished. Nothing therefore merits the protection of a patent monopoly.

In a recent Supreme Court case involving claims directed to a cashier's counter equipped with a three-sided frame with no top or bottom which when pushed or pulled will move groceries deposited within it by the customer to the checking clerk, the Supreme Court set up a standard of invention which should be followed.

"In the first place, the extension is not mentioned in the claims, except, perhaps, by a construction too strained to be consistent with the clarity required of claims which define the boundaries of a patent monopoly.

" 'The mere aggregation of a number of old parts or elements which, in the aggregation, perform or produce no new or different function or operation than that theretofore performed or produced by them, is not patentable invention.'

" 'The function of a patent is to add to the sum of useful knowledge. Patents cannot be sustained, when on the contrary, their effect is to subtract from former resources freely available to skilled artisans.'

Great A. & P. Tea Co. v. Supermarket Equipment Corp., U. S., 95 L. Ed. 118, 121, 122.

In a case involving cigar lighters for automobiles wherein a thermostat was used to break contact in a cordless cigar lighter, the Supreme Court had previously

ruled with respect to patents which make little advance over similar structures in prior art patents saying:

“More must be done than to utilize the skill of the art in bringing old tools into new combinations.”

“Strict application of that test is necessary lest in the constant demand for new appliances the heavy hand of tribute be laid on each slight technological advance in an art.”

Cuno Engineering Corp. v. Automatic Devices Corp., 314 U. S. 84, 86 L. Ed. 58, 51 USPQ 272.

The Supreme Court considering another modest advance in the technical art ruled:

“It is elemental that the mere substitution of equivalents which do substantially the same thing in the same way, even though better results may be produced, is not such an invention as will sustain a patent.”

Dow Chemical Co. v. Halliburton Co., 324 U. S. 320, 89 L. Ed. 973, 64 USPQ 412.

Facts in this case involve a “sleeve head angle” for one purpose and a “differential angle” for another purpose.

On a factual basis similar to the case here was one involving a signal torch consisting of an open flame over which had been placed a cap to keep out the rain which was perforated with holes to admit air and other holes to permit the outflow of products of combustion. The Court there held that the patent was invalid saying that, in view of the prior art showing almost the same thing:

“They solved it by merely bringing together the torch and cap. As before, the torch continued to

produce a luminescent, undulating flame, and the cap continued to let in air for combustion, to protect the flame from wind and rain and to allow it to emerge as a warning signal. They performed no joint function. Each served as separately it had done. The patented device results from mere aggregation of two old devices, and not from invention or discovery.”

Toledo Pressed Steel Co. v. Standard Parts, 307 U. S. 350, 355, 356, 83 L. Ed. 1334, 41 USPQ 593.

“And the improvement of one part of an old combination gives no right to claim that improvement in combination with other old parts which perform no new function in the combination.”

Lincoln Engineering Co. v. Stewart-Warner Corp., 303 U. S. 545, 549, 550, 82 L. Ed. 1008, 58 S. Ct. 662.

This Circuit is in accord with the standard of invention set forth by the Supreme Court.

In a patent involving certain alleged improvements in the Schick type electric shaver circumstances parallel the very modest advance or difference in the present coupling over the numerous three-piece couplings of the prior art. Concerning that, this Court said:

“As stated by this circuit in *Keszthelyi v. Doheny Stone Drill Co., et al.*, 59 F. 2d 3, 8, ‘A mere difference or change in the mechanical construction in the size or form of the thing used, in order to obviate known defects existing in the previous devices, although such changes are highly advantageous, and far better and more efficacious and convenient, does not make the improved device patentable. In order to be patentable, it must embody some new idea or principle not before known. It must, as before

stated, be a discovery, as distinguished from mere mechanical skill or knowledge.’”

Schick Service v. Jones, 173 F. 2d 969, 973, 974 (C. A. 9).

“To render invalid the claim of a combination patent it is not necessary that all the elements of the combination be found in a single prior patent. ‘If they are all found in different prior patents and no new functional relationship arises from the combination, the claim cannot be sustained.’”

Magarian v. Detroit Products Co., 128 F. 2d 544, 545 (C. C. A. 9).

A very recent patent suit in this Court involved claims to an apparatus for determining the winner of horse races by the so-called “photo finish,” employing a well-known slit camera at the finish line. This Court holding the claims invalid relied extensively upon Supreme Court decisions, saying:

“The test to be applied to such patents is that the combination must perform some new or different function—one that has unusual or surprising consequences.”

“The most that can be said for the patent in suit is that it rearranges the elements of the slit camera in such a manner that in the performance of their respective functions a higher degree of accuracy is obtained. But perfection of workmanship, however useful or convenient, does not constitute invention. . . .” (Citing numerous Supreme Court cases.)

Photochart v. Photo Patrol, Inc., F. 2d, 90 USPQ 46, 48.

Other circuits are in accord with these decisions, but limitations which should be observed in brief writing will preclude citation.

10. Appellees' Supplemental Argument.

Appellant has claimed many advantages for the Parker patent in issue. These Appellant has illustrated by numerous diagrams and particularly those of Exhibit 28. These advantages are met in every detail by the Parker three-piece fitting which was commercially produced in 1935 (prior art) and which is illustrated in assembled condition in Exhibit JJ. The points of advantage claimed are interesting to note.

That parts provide hoop tension [Ex. 28K], is equally true of the 1935 Parker three-piece fitting [R. 622]. That hoop tension locks the head against loosening was likewise true. That free expansion corrects out of round sleeves Exhibit 28M, was true of the old three-piece fitting [R. 623]. Although toe contact is claimed to make the amount of nut turning less critical, Exhibit 28Q, there is no toe contact in the AN Std. fitting, Exhibit O.

That the fitting provides more room for expansion where expansion is greatest, Exhibit 28P, that it permits maximum shoulder contact, Exhibit 28Q, that it facilitates disassembly of the sleeve from the nut, Exhibit 28R, that it provides additional clearance to avoid locking of the sleeve to the nut, Exhibit 28S, is as true of the old 1935 three-piece fittings [R. 623]. That the three-piece fitting prevents scoring of the flare, Exhibit 28T, prevents twisting of the tube, Exhibit 28U, facilitates disassembly of bent tubes, Exhibit 28V, and facilitates disassembly of damaged or tagged tubes, Exhibit 28W, is equally true of the old 1935 Parker fitting [R. 624-625].

If AN Std. fittings is synonymous with "Parker fittings" or "Parker couplings" (App. Op. Br. 27), then the Parker fitting is in the public domain because Parker used the same sleeve clearance and differential angle on February 18, 1935 [Ex. KK], and that was called a

Parker type fitting. This was true in the size 6 and other sizes were comparable. See the chart of sundry sizes on Exhibit KK. That this is true is undisputed.

“Parker fittings” were known as such in 1934 but at that time there was no such thing as AN Std. Neither was there then in existence the patent in suit. Some Parker fittings were two-piece fittings. Therefore Appellant’s insistence that the term “Parker fittings” or “Parker type fittings” is indicative of fittings made in accordance with the patent in suit is utterly fallacious. Disproof of all of Appellant’s contentions lies in the record of evidence and exhibits herein presented to this Court of Appeals and pointed out for the Court’s convenience in the foregoing brief.

When the structure of the patent in suit was designed no great problems needed solving. Three-piece fittings were satisfactorily used to a wide extent.

See the following cross-examination:

“Q. (By Mr. Huebner): Mr. Wolfram, are you aware of any problem that confronted the aircraft industry with respect to flared tube fittings prior to the application for the patent in suit, which application was originally filed March 2? A. No, not directly.

Q. You would not then be able to testify of your own knowledge as to any particular problems that may have been solved by the advent of this patent in suit, would you? A. No problems which existed before the application date, no.” [R. 483.]

Minor dimensional changes proposed by the patent in suit are consequently not worthy to be construed as inventions. They warrant being considered as no more than a mechanic’s refinement of a good fitting already in use.

II.

The Parker Patent No. 2,212,183 as to All Three Claims Is Invalid for Uncertainty and Failure to Meet the Requirements of Revised Statutes, Sec. 4888, 35 U. S. C. 33.

THE STATUTE.

The pertinent provisions of the statute are here quoted for convenient reference, with italics by us, for emphasis:

“Before any inventor or discoverer shall receive a patent for his invention or discovery he shall make application therefor, in writing, to the Commissioner of Patents, and shall file in the Patent Office a *written description* of the same, and of the manner and process of making, constructing, compounding, and using it, *in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which it appertains*, or with which it is most nearly connected, *to make, construct, compound, and use the same*; and in case of a machine, he shall explain the principle thereof, and the best mode in which he has contemplated applying that principle, so as to distinguish it from other inventions; *and he shall particularly point out and distinctly claim the part, improvement, or combination* which he claims as his invention or discovery * * *.” (R. S. Sec. 4888, 35 U. S. C. 33.)

SOME LEADING SUPREME COURT DECISIONS.

A brief resumé of several Supreme Court decisions on the subject furnishes a logical setting for considering the facts in the present case, and the application of the law in the Ninth Circuit:

The doctrine that patent claims must be definite, clear and unambiguous has been consistently followed by the

Supreme Court. In the early case of *Merrill v. Yeomans*, 94 U. S. 568, 573, it was said:

“The developed and improved condition of the patent law, and of the principles which govern the exclusive rights conferred by it, leave no excuse for ambiguous language or vague descriptions. The public should not be deprived of rights supposed to belong to it, without being clearly told what it is that limits these rights. * * * It seems to us that nothing can be more just and fair both to the patentee and to the public, than that the former should understand and correctly describe just what he has invented, and for what he claims a patent.”

In *Bates v. Coe*, 98 U. S. 31, 25 L. Ed. 68, the Supreme Court explained the purposes of the statutory requirement in the following language:

“Accurate description of the invention is required by law, for several important purposes; (1) that the government may know what is granted and what will become public property when the term of the monopoly expires. (2) That licensed persons desiring to practice the invention may know, during the term, how to make, construct and use the invention. (3) That other inventors may know what part of the field of invention is unoccupied. *Gill v. Wells*, 22 Wall. 27 (89 U. S. XXII, 711).”

The *Incandescent Lamp Patent*, 159 U. S. 465, 40 L. Ed. 221, held a patent for an incandescent conductor for an electric lamp, invalid because the claims in issue were too indefinite.

Holland Furniture Co. v. Perkins Glue Co., 277 U. S. 245, 72 L. Ed. 868, cites cases, condemns claims on the

result or function of a machine, and applies the rule to a composition of matter.

The *Merrill v. Yeomans* case was cited with approval many years later by Mr. Justice Brandeis in the case of *Permutit Co. v. Graver Corp.*, 284 U. S. 52, 60, with the statement that:

“The statute requires the patentee not only to explain the principle of his apparatus and to describe it in such terms that any person skilled in the art to which it appertains may construct and use it after the expiration of the patent, but also to inform the public during the life of the patent of the limits of the monopoly asserted, so that it may be known which features may be safely used or manufactured without a license and which may not.”

In the *United Carbon* case, *infra*, the Supreme Court held invalid claims on carbon black drawn in the following language:

- “1. Substantially (sic) pure carbon black in the form of commercially uniform, comparatively small, rounded, smooth aggregates having a spongy or porous interior. 2. As an article of manufacture, a pellet of approximately one-sixteenth of an inch in diameter and formed of a porous mass of substantially pure carbon black.”

After discussing the various qualifying words and phrases, the Court said:

“So read, the claims are but inaccurate suggestions of the functions of the product, and fall afoul of the rule that a patentee may not broaden his claims by describing the product in terms of function. *Holland Furniture Co. v. Perkins Glue Co.*, 277 U. S. 245, 256-258; *General Electric Co. v. Wabash Corp.*, *supra*, 304 U. S. at 371-372

[37 U. S. P. Q. at 469-470]. Respondent urges that the claims must be read in the light of the patent specification, and that as so read they are sufficiently definite. Assuming the propriety of this method of construction, cf. *General Electric Co. v. Wabash Corp.*, *supra*, 304 U. S. at 373-375 [37 U. S. P. Q. at 470], it does not have the effect claimed, for the description in the specification is itself almost entirely in terms of function."

United Carbon Company v. Binney & Smith Company, 317 U. S. 228, 234, 63 S. Ct. 165, 87 L. Ed. 232, 55 U. S. P. Q. 381, 384.

Parenthetically, in *Anraku v. General Electric Co.*, 9 Cir., 80 F. 2d 958, the Circuit Court of Appeals of the Ninth Circuit affirmed the district court in holding certain claims sufficiently specific, valid and infringed, and certiorari was denied. In *General Electric Co. v. Wabash Appliance Corporation*, 2 Cir., 91 F. 2d 904, the same patent and the same claims were in issue, and the Second Circuit reversed the district court in holding the claims valid and infringed, and held the patent invalid because anticipated.

Certiorari was granted because of conflict, and the Supreme Court affirmed the Second Circuit, holding the claims were *not sufficiently definite*, and that they *were functional and invalid*.

General Electric Co. v. Wabash Appliance Corp., 304 U. S. 364, 371, 58 S. Ct. 899, 82 L. Ed. 1402, 37 U. S. P. Q. 466.

Mr. Justice Reed, speaking for the Supreme Court, said:
“* * * But the vice of a functional claim exists not only when a claim is ‘wholly’ functional, if that is ever

true, but also when the inventor is painstaking when he recites what has already been seen, and then uses conveniently functional language at the exact point of novelty.”

The claim selected as typical, in the *General Electric* case was Claim 25 in Patent No. 1,410,499, relating to tungsten filaments for incandescent lamps. The claim read as follows:

“25. A filament for electric incandescent lamps or other devices, composed substantially of tungsten and made up mainly of a number of comparatively large grains of such size and contour as to prevent substantial sagging and offsetting during a normal or commercially useful life for such a lamp or other device.”

However, since the *General Electric* case involved product claims, some question arose as to whether or not the rule enunciated therein applied to apparatus claims.

This further question was resolved in the case of *Halliburton Oil Well Cementing Co. v. Walker, et al.*, 329 U. S. 1, 9, 71 U. S. P. Q. 175, wherein this Court speaking through Mr. Justice Black stated as follows:

“The language of the claim thus describes this most crucial element in the ‘new’ combination in terms of what it will do rather than in terms of its own physical characteristics or its arrangement in the new combination apparatus. * * *”

The *General Electric* and *Halliburton* cases in holding the patents there involved to be invalid, emphasize that the violence done is in using functional language to describe the main feature of the invention.

The *Halliburton* decision was criticized by us when we argued before the Supreme Court in *Faulkner v. Gibbs*, 338 U. S. 267. The criticism sought clarification, and in *Faulkner v. Gibbs* the Supreme Court did distinguish the patent in such case over the patent, or at least the doctrine involved in, *Halliburton* but did not overrule the principle of the *General Electric* decision.

Thus both statute and case law require sufficiency in the description of an invention and certainty in the claims. We will subsequently refer to decisions by the Court of Appeals for the Ninth Circuit.

FINDINGS, CONCLUSIONS AND EVIDENCE ON THIS DEFENSE.

This defense was pleaded in paragraph 18 of the Answers of both defendants [R. 15 and 46], substantial evidence was adduced in support of the point, *i. e.*, the patent itself, and admissions by plaintiff's expert witness, and the District Court in its opinion sustains the defense [R. 67-73]. Pertinent findings made by the District Court are numbered VII, VIII, XII, XIII, XIV [R. 80-85], and Conclusions of Law numbered 2 and 3 [R. 86-87] hold the patent invalid on these grounds.

Fatal defects are noted both in the description (sometimes referred to as the specification), and in the claims.

The description omits material information, and renders the entire patent void for failure to describe the alleged invention "in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which it appertains, * * * to make, construct, compound and use the same * * *."

The three claims fail to “particularly point out and distinctly claim the part, improvement, or combination which he claims as his invention or discovery * * *.” The Parker patent claims are classifiable as “functional at the exact point of novelty, if there is any novelty,” as “uncertain,” as “indefinite,” as “ambiguous,” as “overclaiming the alleged invention.” Some of the reported decisions deal with patent claims which fall into only one of these categories. Any one is sufficient to invalidate the patent. All are condemned by the statute and court decisions. The Parker patent must fall from any one of them, and it is susceptible of being catalogued under all of them.

**1. Sampling of Evidence on Deficiency of Description
Clearly Supports This Defense.**

On cross-examination, John N. Wolfram, Parker's expert, conceded that the Parker Patent No. 2,212,183 makes no mention of the kind of metal to be used [R. 375], there are no dimensions recited or stated [R. 375], there is no recommended torque specified for tightening up of the nuts [R. 376], in actual practice the torque would depend on a number of factors [R. 377], generally, if you had a small fitting the torque would normally be less than for a large fitting, and steel would require greater torque than aluminum [R. 377]. These factors are important, yet none of them are even hinted at in the patent.

The patent description is deficient concerning the “differential” angle [R. 421-22]. See the following cross-examination of Wolfram:

“Q. Now, would you refer to the patent in suit, please? Look at Fig. 2 to start with. There are

two angles, to which I believe reference has been made. I would like first to inquire concerning the angle between the inside of the sleeve head and the outside of the tube. It has been called, has it not, a differential angle? A. Yes. The angle bounded by the lines B and C, I think we refer to as a differential angle.

Q. What does the patent teach that that angle in there would be?

The Court: What do you mean?

Mr. Huebner: In degrees, your Honor.

The Court: You mean in degrees?

Mr. Huebner: In degrees:

The Witness: I don't recall that the patent states what the degrees should be.

Q. (By Mr. Huebner): How would one manufacturing this item from the patent know what degree angle to put in there? A. Well, the drawing clearly illustrates that it is a small angle.

Q. What is your interpretation of a small angle as it applies to this disclosure, in degrees now? Let's get down to brass tacks. A. I think that the angle in degrees could vary depending upon what you are designing the fitting for, whether you are designing a lightweight fitting or a heavyweight fitting for maybe railroad work, or something else.

The Court: There is nothing in the patent, is there, to indicate what the slope or what the angle is on the sleeve, that is C on Figure 2?

The Witness: I think what the patent states is that this angle is cut away at an angle that is great enough so that you will obtain initial contact at the point of the sleeve, and it doesn't matter too much exactly what the angle is, as long as you bring about that result."

A clear instance of the inaccuracy and insufficiency of the Parker patent drawings is revealed by Appellant's chart on page 9 of its Opening Brief. The sleeve head is shown as being slightly reduced in transition from "finger tight" to "fully clamped" condition. The "differential angle" is illustrated to be as great or greater in degrees to start with as the "sleeve head angle," and in fully clamped condition this large differential angle has wholly disappeared. Under the latter circumstance, the sleeve head angle would have more than disappeared; the sleeve head would be pushing out into the wall of the nut; yet the patent drawing shows that an angular spacing yet remains.

The patent description is deficient concerning the "sleeve head" angle [R. 439-442]. Cross-examination of Wolfram continued:

"Q. All right. Now, refer back, if you will, to another angle that is talked about in the patent. You can look at Figure 2 of the patent in suit. Is there any dimension in degrees, that is to say any specification in degrees, recited in the patent regarding the angle d, small letter d, with an arrow pointing to a line? That is the angle on the outside of the sleeve head. A. I don't recall that the patent sets forth a specific angle in the written part of the description.

Q. Well, it doesn't give it on the drawing either, does it? A. Not in degrees.

Q. And it doesn't tell you in the claims what the degree angle is, does it? A. It doesn't define it in degrees.

Q. Now, as an engineer or an expert in this field, how many degrees would make such an angle?

A. Whatever is necessary to obtain the function or the principle that is involved.

Q. Well, how would you go about finding that out, then? A. Well, I think the patent states that there is a close clearance or that the sleeve head is so shaped that it will contact in the upper region or the region of the clamping shoulder, and that is spaced in the lower region. And once that principle is brought to light, I think that it wouldn't be too much trouble to determine an angle that would be satisfactory."

Then follows a short section already quoted, but for continuity is here repeated:

"Q. If it is so simple, just tell the court briefly so."

Q. If it is so simple, just tell the court briefly how you go about determining what the angle will be. A. Well, I think that the specific angle could probably best be determined by straightforward engineering analysis, or else experiment, either one.

Q. Would you be able to determine it? Do you have enough knowledge of the principles involved to figure that out? A. I think if I set about doing it I think that could be determined.

Q. You are a man skilled in the art; how would you determine what that angle should be? Tell the court the line that you would follow in determining what the angle should be. A. Well, as I mentioned, it could be determined by a stress analysis or by experiment.

Q. Is that your complete answer? A. I think so.

Continuing:

“Q. Are there any circumstances under which that angle might be as much as 10 degrees and operate satisfactorily? A. That depends upon what you are designing for.

Q. I said any circumstances, any fitting embodying these principles, and you can make your own example if you want to, is there any fitting that could be built up out of this patent and use an angle as much as 10 degrees and be within the teaching of the patent? A. Yes, I think it could.

Q. What is the least angle that could be employed and embody the teaching point of the patent? A. *Well, the least angle would be that angle that would still produce the principle that the patent teaches.*

Q. Well, in degrees, what is the least possible angle in degrees under any materials that you want to assume that are put into this thing that would work as the patent teaches and be within the scope of the patent subject-matter? A. Well, that is a very broad question.

Q. Sure. You know a lot about the art. A. I don't think that there is any specific cut-off point, because you could always hedge another minute or two minutes, perhaps.

Q. Would 1/10 of one degree comply with the teaching of the patent? A. It might if you had the other parts of the fitting proportioned, likewise.”

2. Sampling of Evidence on Deficiency of the Parker Claims Clearly Supports This Defense.

Now, when we turn to the Parker claims, we find even more serious uncertainty and ambiguity, because the claims measure the “invention.”

On direct examination, Wolfram had testified at length as to the meaning of the three claims of the patent, starting at R. 291.

On cross-examination he was asked [R. 369-70] to illustrate as many different forms as occurred to him as exemplifying the variations or so-called minor changes in construction and shaping of parts as he feels come under the patent. They were produced in his cross-examination and explained, beginning at R. 394, Defendants’ Exhibits B and C [reproduced R. 1411 and 1412], and Defendants’ Exhibit E, R. 412 [reproduced R. 1413]. They are seen in Sheet No. 4 of the Appendix to this brief. They *vary materially* from the drawings in the Parker patent but Wolfram says they fall under the phrases in the claims “so shaped that.”

Then Wolfram was cross-examined on the wording and interpretation of the claims. Claim 1 is discussed commencing R. 428, Claim 2 at R. 442, and Claim 3 at R. 446.

Element by element, Wolfram admitted that everything in the three claims was old in the art except the functional phrases introduced by the words “so shaped.”

For example, he admitted that in Claim 1 the following phrase is the “new structure” or *crux* of the Parker contribution:

“so shaped that the initial contact of the head with the flared end of the tube is at the free end of the

head and adjacent the outer end of the flared end of the tube," [R. 430 and 436].

In attempting to reduce this language to terms of a physical structure he remarked "after all the words are merely trying to express a principle." [R. 438.]

The phrase in Claim 2 which Wolfram says distinguishes over the prior art is:

"the outer surface of said head and the said inner wall of the coupling member being so shaped relative to each other that when the sleeve head expands during the clamping action they will contact only in the region of the clamping shoulder." [R. 443.]

In Claim 3 Wolfram says there are *two crucial features*. One is the above quoted "so shaped" phrase which characterizes Claim 1 [R. 447]. The other is the "so shaped" phrase quoted immediately above as to Claim 2 [R. 447].

The point was summarized by the following questions and answers at R. 448:

"Q. And both of the crucial clauses are characterized by the limiting words "so shaped," is that right? A. Yes, the words "so shaped" are repeated in both of those clauses.

Q. As a matter of fact, the words "so shaped" qualify the crucial features of each one of the three claims of the patent, don't they? A. Did you say the three claims of the patent?

Mr. Huebner: Perhaps you had better read the question.

(The question was read by the reporter.)

The Witness: That is correct, those terms or words appear in all three claims."

The foregoing is but a sampling of the evidence establishing that the Parker patent is uncertain, indefinite and ambiguous.

THE FINDINGS OF THE DISTRICT COURT SHOULD NOT
BE DISTURBED ON APPEAL.

The findings of the District Court in this respect will not be disturbed by a Court of Appeals unless there is no substantial evidence, in support thereof, or the District Court's decision in such respect was wholly erroneous.

Research Products Co. v. Tretolite Co. (9 Cir.),
106 F. 2d 530;

Bank v. Rauland Corp. (7 Cir.), 146 F. 2d 19.

If there is conflicting evidence, the trial court's findings will ordinarily prevail. *Bank v. Rauland, supra*.

Here, the defense is made out by cross-examination of plaintiff-appellant's expert who is also an employee.

"A case that can be made out in all its elements by cross-examination of opposing witnesses is a strong case."

Eibel Process Co. v. Minnesota & Ontario Paper Co., 261 U. S. 45, 53, 67 L. Ed. 523, 528.

Here we have a patent in which the "differential angle" is said to be important and which furnishes the "crucial element" (if there be one) in Claim 1, and one of the "crucial elements" in Claim 3, yet *nowhere in the description or drawings is the range of degrees, or preferred degree, of angle, stated*. The angular difference must relate to something. It could not be any angle selected at random because obviously an angle exceedingly great would be unworkable.

An examination of the history of the differential angle demonstrates that it was established long before the patent in suit and was employed in the old NAF two-piece coupling which was used in 1935 and before. The

body of the two-piece coupling had an angle at the nose of 37° , and an angle of 33° on the flared portion of the nut. These are the same angles which are used today on the nose of the body and the flare of the sleeve portion of the nut for the AN Std. coupling. Amon Dep. [R. 995, 996]; Davies Dep. [R. 1085].

Plaintiff attempts to define "differential angle" [R. 195]. By this description Plaintiff's witness, Wolfram, attempts to suggest that the angle on the inside of the sleeve is different from the angle on the tube flare so that the free end of the sleeve contacts the flare first. This is a different conception of "differential angle" from that suggested by Plaintiff's other witnesses, Davis, its chief engineer, and Amon.

The claims do not identify this structural feature of the purported invention as an angle, the claims say no more than that certain well-known parts are "*so shaped that*" certain functional relationships result.

Plaintiff has attempted to support the differential angle by attributing to it special safety features such as the prevention of a pinch-off of the flare on the tube. Use of a differential angle would not prevent pinch-off, whereas the Douglas improvement feature of the AN fitting does prevent it [R. 830-31].

The "sleeve head angle" is said to be the crucial element in Claim 2, and one of the crucial elements in Claim 3, yet the *degree of angle, or range of degrees permitted, is not stated in the description or shown in the drawings; and is not identified as an angle at all in the claims.* Here again this most important element is described as "*so shaped that.*"

In point of fact the 811 three-piece Parker coupling used in 1935 before the sleeve head angle was introduced was "so shaped that" the sleeve head could expand during the clamping action [R. 115, 185]. The suggested shaping is clearly depicted by the clearance shown in defendants' scale drawing Exhibit JJ [R. 622]. As evidenced by recent trends exemplified by recommendations of the Society of Automotive Engineers employment of a sleeve head angle is purely optional [R. 723b, 770].

The Plaintiff, over the period of years ante-dating the patent in suit, discovered that the clearance first advocated by Plaintiff's Patent 1,893,442 should be made greater to relieve sticking of the sleeve in the nut. In 1930 the maximum clearance was .002 inches, and the minimum zero; in 1935 in the 6 size, for example, the maximum clearance had been increased to .009, and the minimum .005; in 1940 the maximum clearance in the 6 size was increased to .013, and the minimum .007 [R. 712, 679-80]. Plaintiff's letter to Wright Field October 25, 1940 [Pltf. Ex. 65] sets forth recommendations in harmony with these figures.

North American Aviation Company used A. C. 811 fittings in 1936 and found them satisfactory [R. 706, 743]. There is in fact no advantage achieved by employment of a sleeve head angle [R. 736-37], nor in restricted radial expansion at the large end of the sleeve [R. 738-39, 782, 797]. Plaintiff's witness Amon, Manager of Aircraft Sales, said that the early Parker 811 coupling had a clearance between the sleeve head and the nut [Amon Dep. 104, 105; R. 1016].

When there is taken into consideration the wealth of anticipating structure showing a clearance to be common practice, claims relying upon expressions such as “so shaped that” run square into the type of claims condemned in the *General Electric* and other cases. These claims are not true novel combination claims of the type upheld by the Supreme Court in *Faulkner v. Gibbs*, where that court distinguished over the *Halliburton* decision.

If there is any novelty attempted to be claimed, it is based on (a) providing the “differential angle” and (b) providing the “sleeve head angle.” But the failure to specify these features *per se* in the claims is fatal to their validity.

Stated otherwise, the claims are broader than the invention, if there be invention. Consequently they are invalid. They are not even susceptible to a narrow enough interpretation which would save them, first because their language is broadly and generally declarative in a functional way, and second, there is not sufficient foundation in the description and drawing to provide the limits of structural angles and proportions which would have to be read into them.

THE COURT OF APPEALS FOR THE NINTH CIRCUIT HAS
RECOGNIZED AND APPLIED R. S. SEC. 4888, 35 U. S.
C. 33 TO INVALIDATE PATENTS.

A patent on improvements in flotation of minerals was held insufficient under the law where the purported invention was a mere addition of an agent described in terms of physical characteristics.

Metals Recovery Co. v. Anaconda Copper Min. Co.
(9 Cir.), 31 F. 2d 100.

The rule that a patent must be definite and certain is recognized by this Court in *Research Products Co., Limited, et al. v. Tretolite Co., et al.* (9 Cir., 1939), 106 F. 2d 530, but the patent was held sufficient, being a broad new development and citing chemical characteristics and specific examples of chemicals suitable for the patentee's purpose. The opinion distinguishes over *Metals Recovery Co. v. Anaconda Copper Mining Co., supra*, based upon the discussion of the Supreme Court in the *Incandescent Lamp* case, *supra*, and *Corona Cord Tire Co. v. Doan Chemical Corporation*, 276 U. S. 358, 48 S. Ct. 380, 72 L. Ed. 610.

A claim for a control system for an elevator car was ruled invalid because of indefiniteness and because it covered only a function. The claim fully stated the result to be accomplished by the invention but the only means supplied for accomplishing it was a series of switches, and any system controlled by electric switches for accomplishing the same result would have been an infringement. The Court, referring to Supreme Court decisions, commented that the distinction between a claim invalid for lack of sufficient description and a claim invalid because it claims too much is, in some cases at least, an illusory one. We quote from this Court's opinion:

"In the instant case, just as *Wyeth vs. Stone and O'Reilly vs. Morse*, the difficulty was occasioned by failure to incorporate in the claim a sufficient description of the invention; the result, however, was not an indefinite claim, but a claim broader than the patent law permits."

Otis Elevator Co. v. Pacific Finance Corp., 68 F. 2d 664, 669, rehearing denied with accompanying opinion, 71 F. 2d 641.

A patent for an improvement in trailer wagons was held invalid by this Court for failure to particularly point out and distinctly claim the asserted invention.

Reinharts v. Caterpillar Tractor Co. (9 Cir.), 85 F. 2d 628, 637 (cert. den., 302 U. S. 694, 58 S. Ct. 13, 82 L. Ed. 536).

This Court held two patents invalid which related to parasiticides for internal use in animals, because of use of functional language at the exact point of novelty.

Farmers' Cooperative Exchange v. Turnbow, et al. (9 Cir.), 111 F. 2d 728.

The Court said, at page 732:

“Patents, whether basic or for improvements, must comply accurately and precisely with the statutory requirement as to claims of invention or discovery.

* * *

“The claims here violate that rule, and are void because ‘conveniently functional language at the exact point of novelty’ is used. *General Electric Co. v. Wabash Appliance Corp.*, *supra*, 304 U. S. 371, 58 S. Ct. 903, 82 L. Ed. 1402. See, also, *Wood v. Underhill et al.*, 46 U. S. 1, 4, 5 How. 1, 4, 12 L. Ed. 23; *The Incandescent Lamp Patent*, 159 U. S. 465, 474, 16 S. Ct. 75, 40 L. Ed. 221.

* * * * *

“While the claims may be limited by the specification, the instant case falls within the rule stated in *General Electric Co. v. Wabash Appliance Co.*, *supra*, 304 U. S. 374, 58 S. Ct. 904, 82 L. Ed. 1402, that

the 'claims in suit seek to monopolize the product however created, and may not be reworded, in an effort to establish their validity, to cover only the products of the process described in the specification, or its equivalent.' ”

Patent No. 1,757,978, Claim 1, relating to a mechanical dry shaving machine, comprising, among other things, blades and walls, was held invalid under 35 U. S. C. 33 where it could not be ascertained from the claim or from the specification what kind of blades or what kind of walls the claim refers to.

Motoshaver, Inc. v. Schick Dry Shaver, Inc. (9 Cir.), 112 F. 2d 701.

This Court applied the principles of *United Carbon Co. v. Binney and Smith*, 317 U. S. 228, 63 S. Ct. 165, 87 L. Ed. 232, and *General Electric Co. v. Wabash Appliance Corp.*, 304 U. S. 364, 58 S. Ct. 899, 82 L. Ed. 1402, holding invalid for vagueness and uncertainty, claims describing an exposure of materials as “for a period *sufficient* to effect antirachitic activation but so limited as to avoid subsequent *substantial injury* to the antirachitic principle.”

Vitamin Technologists v. Wisconsin Alumni Research (9 Cir.), 146 F. 2d 941; cert. den., 325 U. S. 976, 89 L. Ed. 1994.

OTHER COURTS OF APPEAL HAVE FOLLOWED THIS LAW.

The law which we here invoke has been recognized and applied consistently by the Courts of Appeals in other Circuits to the extent that citation of cases would un-

necessarily burden this brief. Long lists of them may be found in the notes following 35 U. S. C. A. 33.

We have selected only one additional decision, because it is probably the most recent published opinion on the question, and is by the United States Court of Customs and Patent Appeals, a body well versed in patent law.

Patent claims were refused an applicant for a patent on an improved duplicating blank where the improvement was defined in the claims as a coating which is "electrically conductive." The Court stated (our emphasis):

"All of the claims before us are drawn to define structure and in order to be patentable they must depend upon the novel structure set out. *Properties, functions, uses, and results* that may appear from the defined structure *are not definitions of it* and may not be solely relied upon to make a claim containing them patentable unless there is a positive setting out of the structure itself in the claims which, of course, must be responsible for properties, functions, uses, and results thereof."

In re Dalton and Cooley (C. C. P. A., May, 1951), 188 F. 2d 170, 89 U. S. P. Q. 271, 273.

3. Appellant's Opening Brief on This Point Is Lacking in Accuracy and Its Authorities Do Not Support Its Argument.

Appellant's brief asserts at several places that the Patent Office Examiner approved the sufficiency of the Parker description and the adequacy of the claims. However, that would not be binding on this Court.

Moreover, the allowance of the Parker patent was not even in accordance with the policy of the higher Patent

Office Tribunals, and it should never have been allowed by the Examiner who passed on the Parker application. In *Ex parte States Lee Lebby*, 4 U. S. P. Q. 482, the Patent Office Board of Appeals affirmed the rejection of claims for a projector with the following comment: "If claim 2 distinguishes at all from these references, as thus combined, it is not in structure but in the functional statement following '*so shaped*' which is not sufficient to carry the claim." (*Italics ours.*)

Claims 2 and 5, both rejected on this ground, read as follows:

"2. In a projector, the combination of a mirror having a spherical reflecting rear face and a refracting front face, and a light source, the light source comprising a substantially V-shaped filament with its apex toward the mirror, **the mirror being so shaped** as to project both convergent and divergent rays, and the location of the filament with respect to the mirror being such that the most convergent ray projected by the mirror and emanating from the apex of the filament does not cross the principal axis of the projector within the working distance of the projector.

"5. In a projector, the combination of a mirror, having a spherical reflecting rear face and a refracting front face, and a light source comprising a substantially V-shaped filament with its apex toward the mirror, **the mirror being so shaped** as to project both convergent and divergent rays, and the location of the filament with respect to the mirror being such that the most convergent ray projected by the mir-

ror and emanating from the apex of the filament does not cross the principal axis of the projector within the working distance of the projector, the two limbs of the filament being in substantially the same horizontal plane.”

Appellant’s argument on this phase of the case is a contention that the District Court misconstrued the language of the controlling statute, failed to consider the nature of the Parker invention, that there is no record evidence that the Parker specification is incomplete, that claims need only point out the invention (not redescribe it), and that without exception, the decided cases hold that claims like Parker’s are proper.

We have re-read the District Court’s Opinion and find no basis for a charge that the Court misconstrued the language of the controlling statute. The Opinion quotes the statute, correctly explains the nature of the Parker asserted invention, and properly applied the statute. If there were any isolated instances in the Opinion where the language might not be that of a patent lawyer or a “patent” judge, they were inconsequential, and were clarified or corrected (if such were necessary) in the Findings and Conclusions.

Appellant’s broadside comment that there is no record evidence that the Parker specification is incomplete, is answered by the sampling of such evidence in the foregoing part of our brief.

The argument that claims need only “point out” the invention is not accurate. The statute says that the patentee “shall particularly point out *and distinctly claim* the part,

improvement, or combination which he claims as his invention or discovery.”

Appellant’s assertion that without exception, the decided cases hold that claims like Parker’s are proper, is completely refuted by the decisions we have cited, and which could be multiplied many times.

Even Appellant’s own citations do not support him, as we shall next point out.

Mumm v. Jacob E. Decker & Sons, 301 U. S. 168, cited on page 45 of Appellant’s Opening Brief, dealt with the burden of proving a patent to be anticipated—not with claims charged to be indefinite.

Western States Mach. Co. v. Hepworth, 147 F. 2d 345, also cited on pages 45 and 48, dealt with questions of inoperativeness said to arise from crossed wires in an electrical circuit, and want of invention—not with claims charged to be indefinite.

Smith v. Snow, 294 U. S. 1, cited on page 48, was concerned with the doctrine of equivalents—not with claims charged to be indefinite.

Payne Furnace & Supply Co. v. Williams-Wallace Co. (9 Cir.), 117 F. 2d 823, cited on pages 48 and 50, considered disclaimers—not claims charged to be indefinite.

Charles Peckat Mfg. Co. v. Jacobs (7 Cir.), 178 F. 2d 794, cited on page 49, related to the interpretation of claims in the light of the description, “where the claims expressly limit the claimed invention to the device specified and described explicitly, with definite limitations

* * *

In *Shull Perforating Co. v. Cavins* (9 Cir.), 94 F. 2d 357, cited on page 50, this Court sustained “means” claims on reference to the drawings and specification.

Schreyer v. Chicago Motocoil Corp. (7 Cir.), 118 F. 2d 852, cited on page 51, held a patent invalid for anticipation and want of invention. The Court did reject the defense of indefiniteness and functionality directed to one of the claims, but in that claim the disputed element was affirmatively identified as a physical part in the combination. It was not a case of “so shaping” old parts to perform some function.

The *Paper Bag* case, 210 U. S. 405, mentioned on page 51 of Appellant’s Opening Brief, is a classic example approving “means” claims. It does not support claims which are indefinite and functional at the crucial point in a minor improvement.

Cutter Laboratories v. Lyophile-Cryochem Corp. (9 Cir.), 179 F. 2d 80, Briefs pages 51 and 55, in holding that “substantially instantaneous freezing” met the requirement of the patent statutes as to claim language, pointed out at page 87, that this phrase referred “not to a new inventive step but to the old, well known step of freezing as a condition necessary to the usefulness of the rest of the claimed combination.” The Court thus distinguished from *General Electric Co. v. Wabash, supra*, and *United Carbon Co. v. Binney and Smith, supra*, which it had followed in *Vitamin Technologists v. Wisconsin Alumni Research Foundation* (9 Cir.), 146 F. 2d 941.

The *Incandescent Lamp* case, 159 U. S. 465, Brief page 52, was properly relied on by the District Court,

as indicated previously in our Brief. Even if there are better cases supporting the District Court's decision, reliance upon that one cannot alter the correctness of such decision.

In *Snow v. Kellar-Thomason Co.* (9 Cir.), 241 Fed. 119, Appellant's Opening Brief, page 53, this Court distinguished the facts from those of the *Incandescent Lamp* case by pointing out that the generalized language being attacked in *Snow v. Kellar-Thomason* related to ingredients or the manner of compounding them which "have no place in the patent as an element; but any compound or primary element, if need be, having the property of cement, and which will cause substances to adhere, satisfies the requirement of the patent."

Halliburton v. Walker, 329 U. S. 1, over which Appellant attempts to distinguish the facts of the present case, Opening Brief page 54, nevertheless supports the general doctrine that a claim must be definite in defining the crucial element or the exact point of novelty. In the *Halliburton* case the patentee added an element to an old combination and should have particularized the new element; in our case, the patentee made one or more of the elements of an old combination "so shaped" that certain results or functions are said to follow. Whether the defect is in failing to adequately define an *added* element, or a *modified* element, is not actually material. Either falls under the condemnation of the law.

Faulkner v. Gibbs, 338 U. S. 267, is said by Appellant on page 55 of his Brief, to wholly dispose of the *Halliburton* case. *Faulkner v. Gibbs*, affirming this Court, ap-

proved “means” claims for inventions which constituted new combinations, as distinguished from additions to, or modifications of old elements in, old combinations. See this Court’s comment on the *Halliburton*, and *Faulkner*, cases, in *Cutter Laboratories v. Lyophile-Cryochem Corp.*, *supra*, 179 F. 2d at pages 90-91, which concludes: “Thus, we have a case in which the validity of the claims lies in ‘the fact of combination rather than the novelty of any particular element.’ *Faulkner v. Gibbs*, 338 U. S. 267, 70 S. Ct. 25.”

General Electric v. Wabash, 304 U. S. 364, discussed by Appellant on page 55 of its Brief, is analogous enough to our case to support the decision herein, as explained in an earlier portion of this Brief. The Parker claims, calling for old and well known parts to be “so shaped,” seek to cover more than Parker invented, if he invented anything. As Parker’s expert commented, these claims seek to cover a principle. It is axiomatic that a principle cannot be monopolized.

III.

The Parker Patent No. 2,212,183 as to All Three Claims Is Invalid Because the Original Application Was Forfeited and the Patent Issued Upon a Renewed Application Containing Additional Subject Matter.

The file wrapper [Defts. Ex. RR, reproduced R. 1427] shows that Parker secured allowance of one claim [R. 1451] and then failed to pay the final fee, allowing the case to become forfeited. He later renewed the application [R. 1453], retaining the one claim which became Claim 1 of the patent, and added Claims 2 and 3.

Claim 2 differs from Claim 1 by omitting reference to the striking of the free end of the sleeve head first at the outer end of the flare, and by adding the particular language directed to a sleeve head which is in contact with the nut at the large end but so shaped as to be out of contact at the free end.

Claim 3 combines features of Claims 1 and 2 and recites the free end of the sleeve head as contacting the flare first and also that the portion of the sleeve head contacting with the flared end of the tube is at all times out of contact with the coupling member. This is subject matter not identical to the subject matter of Claim 1. *It is additional matter.*

The applicable statute then in force, R. S. 4897 (now repealed) governed the practice. A claim to additional matter could not be inserted in the renewed application. It was not discretionary with the Patent Office, and the

Examiner made a mistake in allowing it. Under the statute, the patent is therefore void.

In re Kaisling, 44 F. 2d 863 (C. C. P. A., 1930).

This point was argued in the District Court but in view of the holding of validity the Court evidently deemed it unnecessary to pass upon the issue. We nevertheless feel that the argument should be considered if for any reason additional grounds for invalidity need be asserted.

This Court has power to affirm on a ground not assigned by the trial court.

Petersen v. Coast Cigarette Vendors, Inc. (9 Cir.), 131 F. 2d 389, 391, citing *McBrine Co. v. Silverman* (9 Cir.), 121 F. 2d 181.

Conclusion.

The mechanical devices involved are simple. Plaintiff-Appellant expanded the subject matter by extensive testimony, a great mass of exhibits, and broad conclusions lacking authenticity. To meet this, the Defendants-Appellees introduced substantial testimony and various exhibits based on accurate measurements and computations—not guess work.

The “sleeve head angle”, and the “differential angle”, asserted by Appellant to be the crux of the alleged invention, are not called for in the claims. Even if they are implied, these angles or their obvious equivalents are found in the prior art, and whatever insignificant changes were made by Parker do not constitute invention.

In view of the deficiency in the patent description, and the ambiguity and indefiniteness of the claims where they

rely upon the term “so shaped” followed by a functional statement, at the precise point of novelty (if there is any novelty), the entire patent is invalid because it does not comply with R. S. Section 4888, 35 U. S. C. 33.

Moreover, the entire patent is invalid as being for a different alleged invention than the original forfeited application.

Respectfully submitted,

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